

Appl. No. 09/655,091
Amdt. dated 4/14/08
Reply to Office action of 1/14/08

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CLAIM AMENDMENTS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented). A containment vessel of a nuclear power plant, comprising:

an interior space;

a condensing chamber disposed in said interior space, said condensing chamber being filled to a filling level with a cooling liquid;

a pressure chamber disposed in said interior space, said pressure chamber having a top region;

a condenser disposed in said interior space;

a condensing pipe leading into said condensing chamber for enabling overflow of vapor in the condensing chamber; and

a drain pipe for noncondensable gases, said drain pipe disposed in said interior space and fluidically connecting said top region of said pressure chamber to said condensing chamber, said drain pipe defining a direct connection to said condensing chamber, and said drain pipe not connected to said condenser; said

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drain pipe having an upper end disposed at a level above said condenser and a bottom end immersed into said cooling liquid;

said condenser and said upper end of said drain pipe being disposed in said pressure chamber, and said upper end of said drain pipe being disposed to permit the noncondensable gases to be led off from atmosphere surrounding said condenser and thermally interacting with said condenser.

Claim 2 (previously presented). A containment vessel of a nuclear power plant, comprising:

an interior space;

a condensing chamber disposed in said interior space, said condensing chamber being filled to a filling level with a cooling liquid;

a pressure chamber disposed in said interior space;

a condenser disposed in said pressure chamber;

a region around said condenser;

a condensing pipe leading into said condensing chamber for enabling overflow of vapor in the condensing chamber; and

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a drain pipe for noncondensable gases, said drain pipe fluidically connecting said region around said condenser to said condensing chamber, and said drain pipe having a top end disposed above said condenser, and said drain pipe defining a direct connection to said condensing chamber, and said drain pipe not connected to said condenser, said drain pipe having an upper end disposed at a level above said condenser and a bottom end immersed into said cooling liquid;

said condenser and said upper end of said drain pipe being disposed in said pressure chamber, and said upper end of said drain pipe being disposed to permit the noncondensable gases to be drawn off from atmosphere surrounding said condenser and thermally interacting with said condenser.

Claim 3 (original). The containment vessel according to claim 1, wherein said drain pipe forms a permanently open flow path.

Claim 4 (original). The containment vessel according to claim 2, wherein said drain pipe forms a permanently open flow path.

Claims 5-6 (canceled).

Claim 7 (previously presented). The containment vessel according to claim 1, wherein said condensing pipe ends below said bottom end of said drain pipe.

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Claim 8 (previously presented). The containment vessel according to claim 2, wherein said condensing pipe ends below said bottom end of said drain pipe.

Claim 9 (original). The containment vessel according to claim 1, including an external cooling basin, said condenser fluidically communicating with said external cooling basin.

Claim 10 (original). The containment vessel according to claim 2, including an external cooling basin, said condenser fluidically communicating with said external cooling basin.

Claims 11-14 (canceled).

Claim 15 (previously presented). The containment vessel according to claim 1, wherein said drain pipe has a bottom end, and said condensing chamber contains a cooling liquid in which said bottom end of said drain pipe is immersed.

Claim 16 (previously presented). The containment vessel according to claim 2, wherein said drain pipe has a bottom end, and said condensing chamber contains a cooling liquid in which said bottom end of said drain pipe is immersed.

Claim 17 (withdrawn - currently amended). A method of operating a condenser in a nuclear power plant, which comprises:

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providing a containment vessel including:

an interior space;

a condensing chamber disposed in the interior space, the condensing chamber being filled to a filling level with a cooling liquid; and

a pressure chamber disposed in the interior space;

providing a condenser in the interior space;

enabling an overflow of vapor in the condensing chamber by a condensing pipe leading into the condensing chamber; and

automatically drawing off noncondensable gases from a region above or around the condenser by a drain pipe leading directly into the condensing chamber, the drain pipe not connected to the condenser, the drain pipe having an upper end disposed at a level above the condenser and a bottom end immersed into the cooling liquid, the condenser and said upper end of the drain pipe being disposed in the pressure chamber, and said upper end of the drain pipe being disposed to permit the noncondensable gases to be led off from atmosphere surrounding the condenser and thermally interacting with the condenser.

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Claim 18 (withdrawn). The method according to claim 17, which further comprises directing the noncondensable gases into the condensing chamber.

Claim 19 (withdrawn). The method according to claim 17, which further comprises directing the noncondensable gases into the cooling liquid located in the condensing chamber.

Claim 20 (withdrawn). The method according to claim 17, which further comprises directing the noncondensable gases above an outlet orifice of the condensing pipe into the cooling liquid located in the condensing chamber.